

Please amend claim 17 as follows:

17. (twice amended) The work machine of claim [10] 11, further comprising:

a ground engaging mechanism mechanically coupled to said engine assembly;

wherein actuation of said ground engaging mechanism by said engine assembly causes said work machine to be advanced over a ground segment.

REMARKS

Reconsideration is respectfully requested. Claims 2-9 and 11-17 are pending in this application. Claims 1, 10 and 18 have been cancelled.

The cited art and Examiner's comments have been fully and carefully considered and responsive thereto the applicant has amended the above-identified claims to more fully clarify the applicant's invention for the Examiner.

Claims 10, 11, 12, 14 and 16-18 were rejected by the Examiner as being anticipated by Wilson. As identified above, claims 10 and 18 have been canceled, and claim 11 has been rewritten as new independent claim 11 (with claims 12, 14, and 16-17 now dependent thereon). Applicant respectfully submits that Wilson fails to teach or suggest applicant's invention as now claimed. Specifically, Wilson fails to teach, show, disclose or suggest an arrangement in which a work machine's cooling core has an upper edge, and a linear extension of the upper edge of the cooling core defines a line L_1 , (ii) a line L_2 is defined by a line which intersects said longitudinal axis so as to define a 90° angle α therebetween, (iii) an angle σ is defined between said line L_1 and said line L_2 , and (iv) $40.0^\circ \leq \sigma \leq 95.0^\circ$. Although the Examiner states, in

part, that Wilson teaches the aforementioned claimed arrangement (e.g., Col. 3, lines 51-67), applicant respectfully submits that this passage merely calls out **possible alternate facing directions of Wilson's air inlet (22) and air outlet (29)** and not, as claimed by the applicant, the range of orientations possible for applicant's cooling core. As Wilson clearly teaches, and with reference to Wilson's Fig. 5 and Col. 2, lines 61-65, Wilson's cooling core is oriented at an **angle from vertical** with any liner extension of an upper edge of Wilson's cooling core being at an angle σ equal to zero (0) degrees. For at least the reasons presented above, Applicant respectfully submits that Wilson fails to teach, show, disclose or suggest applicant's invention as now claimed and that this rejection now be withdrawn.

Claim 13 was rejected by the Examiner as being unpatentable over Wilson, as applied to claims 10 and 12 above, and further in view of Wagner. The Examiner states that Wilson discloses all the limitations of claim 13 except that the work implement includes a truck bed, and that Wagner teaches a work implement which includes a truck bed. The Examiner further states that it would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the work machine of Wilson and incorporate an engine fan. In view of the fact that claim 13 depends upon claim 11 as now amended, applicant repeats herein by reference the aforementioned comments concerning Wilson and, after a careful review of Wagner, further emphasizes that the combination of Wilson and Wagner also fails to teach, show, disclose or suggest a linear extension of the upper edge of a radiator defining a line L_1 , (ii) a line L_2 defined by a line which intersects the longitudinal axis so as to define a 90° angle α therebetween, (iii) an angle σ defined between the line L_1 and the line L_2 , and (iv) $40.0^\circ \leq \sigma \leq 95.0^\circ$. For at least the reasons presented above, applicant respectfully

submits that the rejection of applicant's claims based on the combination of Wilson and Wagner is improper and that this rejection be withdrawn.

Claim 15 was rejected by the Examiner as being unpatentable over Wilson, as applied to claims 10 and 14, and further in view of Masury. The Examiner states that it would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the work machine of Wilson and incorporate an engine fan mounted on the main frame such that the engine assembly is interposed between the engine fan and the radiator fan, as taught by Masury, to provide adequate engine compartment cooling in an improved vehicle construction wherein the radiator has been mounted in a separate chamber.

However, in view of the fact that claim 15 depends on claim 11 as now amended, applicant respectfully submits that the combination of Wilson and Masury does not teach applicants invention as claimed. Specifically, the combination of these two references fails to teach or suggest a cab assembly mounted on the main frame such that the cab assembly is interposed between the engine assembly and the radiator assembly, and where the cooling core is positioned relative to the longitudinal axis such that (i) a linear extension of the upper edge defines a line L_1 , (ii) a line L_2 is defined by a line which intersects the longitudinal axis so as to define a 90° angle α therebetween, (iii) an angle σ is defined between the line L_1 and the line L_2 , and (iv) $40.0^\circ \leq \sigma \leq 95.0^\circ$. In regards to the orientation of Wilson's radiator, applicant's comments above are directly applicable here. Furthermore, in regards to the applicant's claimed location of applicant's cab assembly between the engine assembly and the

radiator assembly, Masury specifically teaches that its **"radiator is mounted within the cab** rearwardly of the driver's seat..." (See Masury, e.g., Col. 1, lines 44-45, emphasis added). In view of at least these differences, applicant respectfully submits that the rejection of applicant's claims based on the combination of Wilson and Masury is improper and that this rejection be withdrawn.

Claims 1-4, 6, and 8-9 were rejected by the Examiner as being unpatentable over Johnston in view of Wilson. As noted previously, claim 1 was canceled by the applicant and claim 2 was amended to become new independent claim 2 (with claims 3-4, 6, and 8-9 are now dependent thereon). The Examiner states that, in part, that it would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the work machine of Johnson and incorporate the following, as taught by Wilson, to provide a self-contained engine cooling system adaptable particularly for behind the cab mounting on trucks and similar vehicles which is readily assessable for maintenance and service, wherein, the transmission assembly is interposed between the engine assembly and the radiator assembly: the main frame has a longitudinal axis, the radiator assembly includes a cooling core having an upper edge, and the cooling core is positioned relative to the longitudinal axis such that (i) a linear extension of the upper edge defines a line L_1 , (ii) a line L_2 is defined by a line which intersects the longitudinal axis so as to define a 90° angle α therebetween, (iii) an angle σ is defined between the line L_1 and the line L_2 , and (iv) $40.0^\circ \leq \sigma \leq 95.0^\circ$.

Responsive to this rejection, applicant respectfully submits that the combination of Wilson and Johnston fails to teach an arrangement where the cooling core is positioned relative to the longitudinal axis such that (i) a linear extension of the upper edge defines a line L_1 , (ii) a line L_2 is defined by a line which intersects the longitudinal axis so as to define a 90° angle α therebetween, (iii) an angle σ is defined between the line L_1 and the line L_2 , and (iv) $40.0^\circ \leq \sigma \leq 95.0^\circ$. For at least the reasons presented above, applicant respectfully submits that the rejection of applicant's claims based on the combination of Johnston and Wilson is improper and that this rejection be withdrawn.

Claim 5 was rejected by the Examiner as being unpatentable over Johnston and Wilson, as applied to claims 1 and 4 above, and further in view of Wagner. The Examiner states that Johnston and Wilson disclose all the limitations of claim 5 except that the work implement includes a truck bed, and that it would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the work machine of Johnston and Wilson and incorporate a work implement which includes a truck bed, as taught by Wagner, to provide a reliable coupling unit for releasable connection of a low truck bed.

In view of the fact that claim 5 depended upon claim 2, applicant repeats herein by reference applicant's above comments regarding the failure of Wilson and Johnston to teach or suggest all of the limitations found in applicant's claim 2. In addition, applicant submits that the combination of Wilson, Johnston and Wagner still fails to teach, show, disclose or suggest a cooling core positioned relative to the

longitudinal axis such that (i) a linear extension of the upper edge defines a line L_1 , (ii) a line L_2 is defined by a line which intersects the longitudinal axis so as to define a 90° angle α therebetween, (iii) an angle σ is defined between the line L_1 and the line L_2 , and (iv) $40.0^\circ \leq \sigma \leq 95.0^\circ$, as claimed by the applicant. For at least the reasons presented above, applicant respectfully submits that the rejection of applicant's claims based on the combination of Johnston, Wilson and Wagner is improper and that this rejection be withdrawn.

Claim 7 was rejected by the Examiner as being unpatentable over Johnston and Wilson, as applied to claims 1 and 6 above, and further in view of Masury. The Examiner states that Johnston and Wilson disclose all the limitations of claim 7 except an engine fan mounted on the main frame such that the engine assembly is interposed between the engine fan and the radiator fan, and that it would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the work machine of Johnston and Wilson and incorporate an engine fan mounted on the main frame such that the engine assembly is interposed between the engine fan and the radiator fan, as taught by Masury, to provide adequate engine compartment cooling in an improved vehicle construction wherein the radiator has been mounted in a separate chamber.

In view of the fact that claim 7 depended upon claim 2, applicant repeats herein by reference applicant's above comments regarding the failure of Wilson and Johnston to teach or suggest all of the limitations found in applicant's claim 2. Again, applicant's earlier comments concerning Wilson, Johnston and Masury are again applicable here. Specifically,

the combination of these three references fails to teach a cab assembly mounted on the main frame such that the cab assembly is interposed between the engine assembly and the radiator assembly, and where the cooling core is positioned relative to the longitudinal axis such that (i) a linear extension of the upper edge defines a line L_1 , (ii) a line L_2 is defined by a line which intersects the longitudinal axis so as to define a 90° angle α therebetween, (iii) an angle σ is defined between the line L_1 and the line L_2 , and (iv) $40.0^\circ \leq \sigma \leq 95.0^\circ$. In regards to the orientation of Wilson's radiator, applicant's comments above are directly applicable here. Furthermore, in regards to the applicant's claimed location of applicant's cab assembly between the engine assembly and the radiator assembly, Masury specifically teaches that its "**radiator is mounted within the cab** rearwardly of the driver's seat..." (See Masury, e.g., Col. 1, lines 44-45, emphasis added). For at least the reasons presented above, applicant respectfully submits that the rejection of applicant's claims based on the combination of Johnston, Wilson and Masury is improper and that this rejection be withdrawn.

For the reasons given above, and after careful review of all the cited references, applicant respectfully submits that none of the cited references nor any combination of the cited references will result in applicant's claimed invention in the remaining claims, as amended. But even if such combination might arguably result in such claimed invention, it is submitted that such combination would be non-obvious and patentable.

In view of the above, applicant respectfully submits that the claims are in the proper form and condition for

allowance and solicit such allowance. If there are any matters which can be clarified or resolved through a telephone interview, the Examiner is requested to contact applicant's undersigned attorney at the number indicated.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "James R. Smith", is written over a horizontal line.

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APPENDIX A

Clean Copy of Amended Claims for

Application No. 09/309,844

2. A work machine, comprising:
a main frame;
an engine assembly mounted on said main frame;
a radiator assembly mounted on said main frame; and
a transmission assembly (i) mechanically coupled to said engine assembly and (ii) mounted on said main frame such that said transmission assembly is interposed between said engine assembly and said radiator assembly;
said main frame has a longitudinal axis;
said radiator assembly includes a cooling core having an upper edge; and
said cooling core is positioned relative to said longitudinal axis such that (i) a linear extension of said upper edge defines a line L_1 , (ii) a line L_2 is defined by a line which intersects said longitudinal axis so as to define a 90° angle α therebetween, (iii) an angle σ is defined between said line L_1 and said line L_2 , and (iv) $40.0^\circ \leq \sigma \leq 95.0^\circ$.

3. The work machine of claim 2, further comprising a cab assembly mounted on said main frame, wherein:
said cab assembly is interposed between said engine assembly and said radiator assembly.

4. The work machine of claim 2, further comprising:
a work implement coupled to said main frame; and
said radiator assembly is interposed between said work implement and said engine assembly.

6. The work machine of claim 2, wherein:
said radiator assembly includes (i) a radiator fan
and (ii) a cooling core; and
said cooling core is interposed between said
radiator fan and said engine assembly.

8. The work machine of claim 2, further comprising:
a conduit having (i) a first end attached to said
engine assembly, (ii) a second end attached to said radiator
assembly and, (iii) said engine assembly is in fluid
communication with said radiator assembly; and

a cooling fluid which is advanced from said radiator
assembly to said engine assembly through said conduit.

9. The work machine of claim 2, further comprising:
a ground engaging mechanism mechanically coupled to
said engine assembly; and

wherein actuation of said ground engaging mechanism
by said engine assembly causes said work machine to be
advanced over a ground segment.

11. A work machine, comprising:
a main frame;
an engine assembly mounted on said main frame;
a radiator assembly mounted on said main frame; and
a cab assembly mounted on said main frame such that
said cab assembly is interposed between said engine assembly
and said radiator assembly;

said main frame has a longitudinal axis;

said radiator assembly includes a cooling core having an
upper edge; and

said cooling core is positioned relative to said longitudinal axis such that (i) a linear extension of said upper edge defines a line L_1 , (ii) a line L_2 is defined by a line which intersects said longitudinal axis so as to define a 90° angle α therebetween, (iii) an angle σ is defined between said line L_1 and said line L_2 , and (iv) $40.0^\circ \leq \sigma \leq 95.0^\circ$.

12. The work machine of claim 11, further comprising:

a work implement coupled to said main frame; and
said radiator assembly is interposed between said work implement and said cab assembly.

14. The work machine of claim 11, wherein:
said radiator assembly includes (i) a radiator fan and (ii) a cooling core; and
said cooling core is interposed between said radiator fan and said cab assembly.

16. The work machine of claim 11, further comprising:

a conduit having (i) a first end attached to said engine assembly, (ii) a second end attached to said radiator assembly, and (iii) said engine assembly is in fluid communication with said radiator assembly; and

a cooling fluid which is advanced from said radiator assembly to said engine assembly through said conduit.

17. The work machine of claim 11, further comprising:

a ground engaging mechanism mechanically coupled to said engine assembly;

wherein actuation of said ground engaging mechanism by said engine assembly causes said work machine to be advanced over a ground segment.